CLAIMS

1. A method of illuminating an environment, comprising:

providing a lighting control signal for controlling a lighting system that has a plurality of lights disposed in a plurality of positions within the environment;

providing a control system for generating a lighting control signal;

providing a connector between the control system and a plurality of the lights; and

providing an address of the connector, wherein a light connected to the addressed connector responds to an addressed control signal that is addressed to that connector.

2. A method of claim 1, wherein the connector is a cable having a head end and a base end, wherein providing the address of the connector comprises providing the address at the head end of the cable.

3. A method of claim 1, wherein the connector is configured to receive a modular light system, wherein the light system responds to control signals addressed to the address of the connector to which the light system is connected.

4. A method of claim 1, wherein the connector provides a two-way data interface between the lights and the control system.

5. A method of claim 4, wherein the control system communicates data with the light system and the data is selected from the group consisting of control data, temperature data, performance data, performance history data, light histogram data, intensity data, color temperature data, on-off status data, color data, time data, total-on-time data, light show data, lighting effect data, alarm data, maintenance data, power-usage data, system status data, customer-entered data, advertising data, branding data, communications data.

6. A method of claim 1, wherein the environment is a transportation environment.

7. A method of claim 6, wherein the environment is an aircraft cabin, further comprising providing an interface of the lighting control system to another computer system.

8. A method of claim 7, further comprising:

providing a facility for shielding an element of the lighting system to minimize emission of interfering signals.

9. A method of claim 7, wherein the other computer system is at least one of a steering system, a navigation system, a safety system, a sensor system, an alarm system, a maintenance system, a communications system or an entertainment system.

10. A method of claim 1, wherein the environment contains a plurality of seats, wherein the light systems are disposed to illuminate the environments of the seats.

11. A method of claim 1, wherein the environment contains a corridor, wherein the light systems are disposed to illuminate at least one of the ceiling and the floor of the corridor.

12. A method of claim 1, further comprising:

controlling a plurality of lights using the control system to provide illumination of more than one color;

wherein one available color of light is white light and another available color is non-white light.

13. A method of claim 12, wherein white light is generated by a combination of red, green and blue light sources.

14. A method of claim 12, wherein white light is generated by white light source.

15. A method of claim 14, wherein the color temperature of white light can be modified by mixing light from a second light source.

16. A method of claim 15, wherein the second light source is a light source selected from the group consisting of a white source of a different color temperature, an amber source, a green source, a red source, a yellow source, an orange source, a blue source, and a UV source.

17. A method of claim 12, wherein the lights comprise LEDs of red, green, blue and white colors.

18. A method of claim 12, wherein the lights comprise LEDs selected from the group consisting of red, green, blue, UV, amber, orange and white.

19. A method of claim 18, wherein the white LEDs include LEDs of more than one color temperature.

20. A method of claim 12, further comprising providing a secondary system for operating on the light output of the light system.

21. A method of claim 20, wherein the secondary system is selected from the group comprising an optic, a phosphor, a lens, a filter, fresnel lens, a mirror, and a reflective coating.

22. A method of illuminating an environment, comprising:

providing a lighting control system; and

controlling a plurality of lights using the control system to provide illumination of more than one color;

wherein one available color of light is white light and another available color is non-white light.

23. A method of claim 22, wherein white light is generated by a combination of red, green and blue light sources.

24. A method of claim 22, wherein white light is generated by white light source.

25. A method of claim 24, wherein the color temperature of white light can be modified by mixing light from a second light source.

26. A method of claim 25, wherein the second light source is a light source selected from the group consisting of a white source of a different color temperature, an amber source, a green source, a red source, a yellow source, an orange source, a blue source, and a UV source.

27. A method of claim 22, wherein the lights comprise LEDs of red, green, blue and white colors.

28. A method of claim 22, wherein the lights comprise LEDs selected from the group consisting of red, green, blue, UV, amber, orange and white.

29. A method of claim 28, wherein the white LEDs include LEDs of more than one color temperature.

30. A method of claim 22, further comprising providing a secondary system for operating on the light output of the light system.

31. A method of claim 30, wherein the secondary system is selected from the group comprising an optic, a phosphor, a lens, a filter, fresnel lens, a mirror, and a reflective coating.

32. A method of lighting an aircraft environment, comprising:

providing a lighting control signal for controlling a lighting system that has a plurality of lights disposed in a plurality of positions within the environment;

providing a control system for generating a lighting control signal;

providing a connector between the control system and a plurality of the lights;

providing an address of the connector, wherein a light connected to the addressed connector responds to an addressed control signal that is addressed to that connector; wherein the lights comprise LEDs selected from the group consisting of red, green, blue, amber, UV, orange and white LEDs.

33. A method of claim 32, wherein the control system has an interface to another system of the aircraft.

34. A method of claim 33, wherein the other system is selected from the group consisting of a navigation system, an safety system, an alarm system, an maintenance system, a communications system and an entertainment system.

35. A method of claim 33, wherein the light is disposed on an aircraft environment selected from the group consisting of the exterior, the cabin interior, a ceiling, a floor, a cockpit, a bathroom, a kitchen, a corridor, an aisle, and a seat.

36. A method of claim 33, further comprising providing a facility for providing lighting control using more than one environmental system.

37. A method of claim 36, further comprising providing a facility for prioritizing lighting commands from different lighting system control elements.

38. A system for illuminating an environment, comprising:

a lighting control signal for controlling a lighting system that has a plurality of lights disposed in a plurality of positions within the environment;

a control system for generating a lighting control signal;

a connector between the control system and a plurality of the lights; and

an address facility of a connector, wherein a light connected to the addressed connector responds to an addressed control signal that is addressed to that connector.

39. A system of claim 38, wherein the connector is a cable having a head end and a base end, wherein the address facility is at the head end of the cable.

40. A system of claim 38, wherein the connector is configured to receive a modular light system, wherein the light system responds to control signals addressed to the address of the connector to which the light system is connected.

41. A system of claim 38, wherein the connector provides a two-way data interface between the lights and the control system.

42. A system of claim 41, wherein the control system communicates data with the light system and the data is selected from the group consisting of control data, temperature data, performance data, performance history data, light histogram data, intensity data, color temperature data, on-off status data, color data, time data, total-on-time data, light show data, lighting effect data, alarm data, maintenance data, power-usage data, system status data, customer-entered data, advertising data, branding data, communications data.

43. A system of claim 38, wherein the environment is a transportation environment.

44. A system of claim 43, wherein the environment is an aircraft cabin, further comprising providing an interface of the lighting control system to another computer system.

45. A system of claim 44, further comprising:

a facility for shielding an element of the lighting system to minimize emission of interfering signals.

46. A system of claim 44, wherein the other computer system is at least one of a steering system, a navigation system, a safety system, a sensor system, an alarm system, a maintenance system, a communications system or an entertainment system.

47. A system of claim 38, wherein the environment contains a plurality of seats, wherein the light systems are disposed to illuminate the environments of the seats.

48. A system of claim 38, wherein the environment contains a corridor, wherein the light systems are disposed to illuminate at least one of the ceiling and the floor of the corridor.

49. A system of claim 38, further comprising:

a plurality of lights using the control system to provide illumination of more than one color;

wherein one available color of light is white light and another available color is non-white light.

50. A system of claim 49, wherein white light is generated by a combination of red, green and blue light sources.

51. A system of claim 49, wherein white light is generated by white light source.

52. A system of claim 51, wherein the color temperature of white light can be modified by mixing light from a second light source.

53. A system of claim 52, wherein the second light source is a light source selected from the group consisting of a white source of a different color temperature, an amber source, a green source, a red source, a yellow source, an orange source, a blue source, and a UV source.

54. A system of claim 49, wherein the lights comprise LEDs of red, green, blue and white colors.

55. A system of claim 49, wherein the lights comprise LEDs selected from the group consisting of red, green, blue, UV, amber, orange and white.

56. A system of claim 55, wherein the white LEDs include LEDs of more than one color temperature.

57. A system of claim 49, further comprising a secondary system for operating on the light output of the light system.

58. A system of claim 57, wherein the secondary system is selected from the group comprising an optic, a phosphor, a lens, a filter, fresnel lens, a mirror, and a reflective coating.

59. A system for illuminating an environment, comprising:

a lighting control system for controlling a plurality of lights using the control system to provide illumination of more than one color;

wherein one available color of light is white light and another available color is non-white light.

60. A system of claim 59, wherein white light is generated by a combination of red, green and blue light sources.

61. A system of claim 59, wherein white light is generated by white light source.

62. A system of claim 61, wherein the color temperature of white light can be modified by mixing light from a second light source.

63. A system of claim 62, wherein the second light source is a light source selected from the group consisting of a white source of a different color temperature, an amber

source, a green source, a red source, a yellow source, an orange source, a blue source, and a UV source.

64. A system of claim 59, wherein the lights comprise LEDs of red, green, blue and white colors.

65. A system of claim 59, wherein the lights comprise LEDs selected from the group consisting of red, green, blue, UV, amber, orange and white.

66. A system of claim 65, wherein the white LEDs include LEDs of more than one color temperature.

67. A system of claim 59, further comprising providing a secondary system for operating on the light output of the light system.

68. A system of claim 67, wherein the secondary system is selected from the group comprising an optic, a phosphor, a lens, a filter, fresnel lens, a mirror, and a reflective coating.

69. A system of lighting an aircraft environment, comprising:

a control system for generating a lighting control signal for controlling a lighting system that has a plurality of lights disposed in a plurality of positions within the environment;

a connector between the control system and a plurality of the lights; and

an address facility of the connector, wherein a light connected to the addressed connector responds to an addressed control signal that is addressed to that connector.

70. A system of claim 69, wherein the lights comprise LEDs selected from the group consisting of red, green, blue, amber, UV, orange and white LEDs.

71. A system of claim 69, wherein the control system has an interface to another system of the aircraft.

72. A system of claim 71, wherein the other system is selected from the group consisting of a navigation system, an safety system, an alarm system, an maintenance system, a communications system and an entertainment system.

73. A system of claim 69, wherein the light is disposed on an aircraft environment selected from the group consisting of the exterior, the cabin interior, a ceiling, a floor, a cockpit, a bathroom, a kitchen, a corridor, an aisle, and a seat.

74. A system of claim 69, further comprising a facility for providing lighting control using more than one environmental system.

75. A system of claim 74, further comprising a facility for prioritizing lighting commands from different lighting system control elements.

76. A method of providing illumination control for an environment, comprising:

disposing in the environment a plurality of intelligent connectors, each intelligent connector being capable of handling addressable lighting data from a lighting control system.

77. A method of claim 76, wherein the intelligent connector is located on the head end of a cable.

78. A method of claim 76, wherein the intelligent connector is located proximally to the seat of an aircraft passenger.

79. A method of claim 78, wherein the lighting control system is in communication with a non-lighting system of the aircraft.

80. A method of claim 79, wherein the non-lighting system is an entertainment system.

81. A method of claim 79, wherein the non-lighting system is a communications system.

82. A method of claim 79, wherein the non-lighting system is a safety system.

83. A method of claim 76, wherein the environment is a transportation environment.

84. A method of claim 83, further comprising:

providing a lighting unit adapted to connect to an intelligent connector, the lighting unit capable of responding to control signals handled by the intelligent connector.

85. A method of claim 84, wherein the lighting unit includes a white light mode and a non-white light mode.

86. A method of claim 85, wherein in the white light mode the lighting unit is capable of producing different color temperatures of white light.

87. A method of claim 84, further comprising:

providing control software for controlling lighting signals sent to the addressable connectors.

88. A method of claim 87, wherein the control software includes a facility for associating lighting control signals with data of the environment.

89. A system for providing illumination control for an environment, comprising:

a plurality of intelligent connectors disposed in the environment, each intelligent connector being capable of handling addressable lighting data from a lighting control system.

90. A system of claim 89, wherein the intelligent connector is located on the head end of a cable.

91. A system of claim 89, wherein the intelligent connector is located proximally to the seat of an aircraft passenger.

92. A system of claim 91, wherein the lighting control system is in communication with a non-lighting system of the aircraft.

93. A system of claim 92, wherein the non-lighting system is an entertainment system.

94. A system of claim 92, wherein the non-lighting system is a communications system.

95. A system of claim 92, wherein the non-lighting system is a safety system.

96. A system of claim 89, wherein the environment is a transportation environment.

97. A system of claim 96, further comprising:

a lighting unit adapted to connect to an intelligent connector, the lighting unit capable of responding to control signals handled by the intelligent connector.

98. A system of claim 97, wherein the lighting unit includes a white light mode and a non-white light mode.

99. A system of claim 98, wherein in the white light mode the lighting unit is capable of producing different color temperatures of white light.

100. A system of claim 97, further comprising:

control software for controlling lighting signals sent to the addressable connectors.

101. A system of claim 100, wherein the control software includes a facility for associating lighting control signals with data of the environment.